

# The ornithological collection of the Zoological Museum of Babeş-Bolyai University, Cluj-Napoca, Romania – Part I: the catalogue of bird skin specimens

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#### **Abstract**

This paper reviews the bird skin collection housed in the Zoological Museum of Babeş-Bolyai University, Cluj-Napoca, Romania. The collection includes 925 specimens, belonging to 193 species from 53 families and 20 orders, collected between 1859 and 2021. Due to its historical background and the presence of rare species, it is considered to be one of most important ornithological collections in Eastern Europe. Such a collection can serve as a basis for valuable ornithological studies. Furthermore, a map representation with new distribution data for bird species is provided, which represents a source of information for the status of the avifauna of the Carpathian basin in the 19<sup>th</sup> and 20<sup>th</sup> centuries.

#### **Keywords**

Aves, biodiversity, bird skin, museum, ornithology, ornithological collections

#### Introduction

Museum collections are important primary data sources for addressing fundamental questions in morphology, systematics, biogeography and biodiversity conservation (Causey et al. 2004; Vágási et al. 2016; Bartoccioni 2017; Pap et al. 2017, 2019, 2020;

Osváth et al. 2018, 2020; Meineke et al. 2019). Collections generally comprise specimens from different time periods and areas; thus, well-labelled preserved specimens provide information on how the environment and species distribution has changed over extended time periods (Solow and Roberts 2006; MacLean et al. 2019; Gotelli et al. 2021). The importance of keeping specimens in collections and making them publicly available is increasing, particularly in the case of old collections, which cover long time periods (Roselaar 2003; Waeber et al. 2017; Mikula et al. 2018).

An important ornithological collection is held in the Zoological Museum of Babeş-Bolyai University, Cluj-Napoca, Romania (Fig. 1). The collection is unique in the region in many ways: it covers a long time span, it contains a variety of species, belonging to different families and orders, and it is composed of the work of several naturalists and employees of the museum. Bird skins account for approximately half of the total



**Figure 1.** Bird skin specimens from the ornithological collection of the Zoological Museum of Babeş-Bolyai University, Cluj-Napoca, Romania.

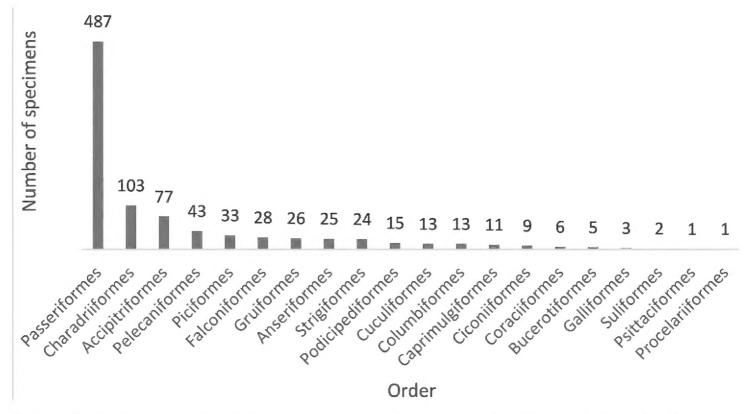
ornithological collection and they were only partially catalogued. Information about the collection had been published, particularly in the early stages of the museum's history (e.g., Herman 1865, 1868, 1869; Apáthy 1910b, 1910a, 1911; Filipaşcu et al. 1965; Filipaşcu 1966), but the revision of the full collection had not been carried out and all specimen data had not been made public until now.

Hence, our aim was to systematically verify the species identification of the bird skin specimens in the Zoological Museum of Babeş-Bolyai University ornithological collection to provide a catalogue of these birds, including the following information: list of species, number of specimens per species, up to date taxonomic nomenclature, and collection data (date, location, collector).

### Materials and methods

We examined each bird skin in the collection and the data cards documenting the identification, locality, date, sex and catalogue number. After this, we checked the species identification of specimens, and we determined the sex and age of birds, where possible. The scientific name and the taxonomy of birds was updated following Handbook of the Birds of the World and BirdLife International Taxonomic Checklist v. 5 (2020).

Some specimens lacked a data card but had old inventory numbers. Therefore, in order to maximise the information content of these specimens, we researched contemporary museum registers and early museum-related reports for data. Following identification, all available specimen data were entered into the updated digital catalogue of the bird skin collection. All collection locality information was georeferenced.



**Figure 2.** Total number of bird skin specimens per order represented in the ornithological collection of the Zoological Museum of Babeş-Bolyai University, Cluj-Napoca, Romania.

**Table 1.** Bird skin specimens held by the Zoological Museum of Babeş-Bolyai University, Romania, including their updated identification and scientific name, locality of collection, name of collector (surname, given name), date of collection, and sex and age of birds. The full catalogue of bird skin collection is provided in the Suppl. material 1: Table S1. A blank cell indicates no available data.

Species	Location	Name of collector	Data	Sex	Age	Order
Acanthis flammea	Cluj-Napoca (CJ)	Zwörner Sándor	23.01.1904	Μ	adult	Passeriformes
Acanthis flammea	Cluj-Napoca (CJ)	Korodi-Gál János	16.02.1973	M	juvenile	Passeriformes
Acanthis flammea	Cluj-Napoca (CJ)	Korodi-Gál János	16.02.1973	M	adult	Passeriformes
Acanthis flammea	Cluj-Napoca (CJ)	Korodi-Gál János	16.02.1973	M	juvenile	Passeriformes
Acanthis flammea	Cluj-Napoca (CJ)	Korodi-Gál János	16.02.1973	F	adult	Passeriformes
Acanthis flammea	Cluj-Napoca (CJ)	Korodi-Gál János	16.02.1973	F	adult	Passeriformes
Acanthis flammea	Cluj-Napoca (CJ)	Korodi-Gál János	16.02.1973	F	adult	Passeriformes
Acanthis flammea	Cluj-Napoca (CJ)	Korodi-Gál János	16.02.1973	F	adult	Passeriformes
Acanthis flammea	Cluj-Napoca (CJ)	Korodi-Gál János	16.02.1973	M	adult	Passeriformes
Accipiter gentilis	Aghireş (CJ)	Führer Lajos	29.02.1906	M	adult	Accipitriformes
Accipiter gentilis	Micești (CJ)	Führer Lajos	03.10.1908	F	juvenile	Accipitriformes
Accipiter gentilis	Cluj-Napoca (CJ)	Führer Lajos	02.07.1905	M	juvenile	Accipitriformes
Accipiter gentilis	Turea (CJ)	Führer Lajos	26.08.1905	M	juvenile	Accipitriformes
Accipiter gentilis	(			M	adult	Accipitriformes
Accipiter gentilis				F	juvenile	Accipitriformes
Accipiter gentilis				M	juvenile	Accipitriformes
Accipiter nisus	Cluj-Napoca (CJ)	Ajtai K. Gyula	xx.08.1892	F	juvenile	Accipitriformes
Accipiter nisus	Turea (CJ)	Führer Lajos	26.08.1905	F	juvenile	Accipitriformes
Accipiter nisus	Turea (CJ)	Führer Lajos	15.07.1905	F	adult	Accipitriformes
Accipiter nisus	Turca (CJ)	Zwörner Sándor	03.10.1903	M	juvenile	Accipitriformes
Acrocephalus arundinaceus	Apahida (CJ)	Führer Lajos	xx.05.1911	F	adult	Passeriformes
Acrocephalus arundinaceus	Apahida (CJ)	Führer Lajos	xx.05.1911	M	adult	Passeriformes
Acrocephalus arundinaceus	•	Führer Lajos	xx.05.1911	F	adult	Passeriformes
•	Apahida (CJ)	,	xx.05.1911	г М	adult	Passeriformes
Acrocephalus arundinaceus	Apahida (CJ)	Führer Lajos			adult	Passeriformes
Acrocephalus arundinaceus	Apahida (CJ)	Führer Lajos	xx.05.1911	M		Passeriformes Passeriformes
Acrocephalus arundinaceus	Apahida (CJ)	Führer Lajos	xx.09.1909	F	adult	
Acrocephalus arundinaceus	Apahida (CJ)	Führer Lajos	xx.09.1909	M	adult	Passeriformes
Acrocephalus palustris	Cluj-Napoca (CJ)	Führer Lajos	xx.05.1911	1.6	adult	Passeriformes
Acrocephalus palustris	Florești (CJ)	Führer Lajos	xx.05.1913	M	adult	Passeriformes
Acrocephalus palustris						Passeriformes
Acrocephalus palustris		Trust Y .	0.7.4.4.4			Passeriformes
Acrocephalus palustris	Cluj-Napoca (CJ)	Führer Lajos	xx.05.1911			Passeriformes
Acrocephalus palustris		-C ,2'.				Passeriformes
Acrocephalus	Apahida (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
schoenabaenus	4 1.1 (CT)	Trut T	10.1000		1	D
Acrocephalus	Apahida (CJ)	Führer Lajos	xx.10.1909	M	juvenile	Passeriformes
schoenabaenus	A 1:1 (CT)	Tui T	10.1000	г		D
Acrocephalus	Apahida (CJ)	Führer Lajos	xx.10.1909	F		Passeriformes
schoenabaenus			1011		1.1.	D :C
Acrocephalus schoenabaenus			xx.xx.1911		adult	Passeriformes
					1.1.	D
Acrocephalus schoenabaenus					adult	Passeriformes
			1011			D:C
Acrocephalus schoenabaenus			xx.xx.1911			Passeriformes
Acrocephalus						Passeriformes
schoenabaenus						1 assemblines
Acrocephalus scirpaceus						Passeriformes
Actitis hypoleucos	Cluj-Napoca (CJ)	Führer Lajos	xx.06.1911	M	juvenile	Charadriiformes
Actitis hypoleucos	Hortobágy (HU)	rumer Lajos	xx.06.1911 xx.04.1907	F	juveime	Charadriiformes
Actitis hypoleucos  Actitis hypoleucos	Geaca (CJ)	Herman Ottó	xx.04.1907 xx.04.1867	F	adult	Charadriiformes Charadriiformes
Actius nypoteucos	Geaca (CJ)	r terman Otto	xx.04.100/	Г	adult	Charadrinormes

Species	Location	Name of collector	Data	Sex	Age	Order
Actitis hypoleucos	Gilău (CJ)	Führer Lajos	xx.05.1911	F	adult	Charadriiformes
Actitis hypoleucos	Gilău (CJ)	Führer Lajos	xx.05.1911	F	adult	Charadriiformes
Actitis hypoleucos	Gilău (CJ)	Führer Lajos	xx.06.1911	F	juvenile	Charadriiformes
Actitis hypoleucos	Gilău (CJ)	Führer Lajos	xx.06.1911	M	adult	Charadriiformes
Actitis hypoleucos	Mociu (CJ)	Führer Lajos	xx.10.1909	M	juvenile	Charadriiformes
Actitis hypoleucos	Mociu (CJ)	Führer Lajos	xx.10.1909	M	adult	Charadriiformes
Actitis hypoleucos	Mociu (CJ)	Führer Lajos	xx.10.1909	F	adult	Charadriiformes
Actitis hypoleucos	Mociu (CJ)	Führer Lajos	xx.06.1910	M		Charadriiformes
Actitis hypoleucos	Răscruci (CJ)	Führer Lajos	xx.11.1909	M	juvenile	Charadriiformes
Actitis hypoleucos	Răscruci (CJ)	Führer Lajos	xx.11.1909	F	juvenile	Charadriiformes
Actitis hypoleucos	Szentgothárd (HU)	Ajtai K. Gyula	23.05.1910	M	adult	Charadriiformes
Actitis hypoleucos					adult	Charadriiformes
Aegithalos caudatus	Cluj-Napoca (CJ)	Führer Lajos	xx.01.1910	F	adult	Passeriformes
Aegithalos caudatus	Cluj-Napoca (CJ)	Ajtai K. Gyula	20.02.1910	M	adult	Passeriformes
Aegithalos caudatus	Cluj-Napoca (CJ)	Führer Lajos	xx.12.1909	M	adult	Passeriformes
Aegithalos caudatus	Cluj-Napoca (CJ)	Führer Lajos	21.12.1902	F	adult	Passeriformes
Aegithalos caudatus	Feleacu (CJ)	Führer Lajos	xx.05.1911	M	adult	Passeriformes
Aegithalos caudatus	Micești (CJ)	Führer Lajos	xx.11.1909	F	adult	Passeriformes
Aegithalos caudatus	Micești (CJ)	Führer Lajos	xx.01.1909	M	adult	Passeriformes
Aegithalos caudatus					adult	Passeriformes
Aegithalos caudatus					adult	Passeriformes
Aegithalos caudatus					adult	Passeriformes
Aegypius monachus	Bucium (SJ)		24.06.1903	F	adult	Accipitriformes
Alauda arvensis	Apahida (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Alauda arvensis	Apahida (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Alauda arvensis	Cluj-Napoca (CJ)	Vincze Ferencz	14.03.1965	M	adult	Passeriformes
Alauda arvensis						Passeriformes
Alauda arvensis						Passeriformes
Alcedo atthis	Florești (CJ)	Führer Lajos	16.08.1912	M		Coraciiformes
Anas acuta	Ocna Mureș (AB)	Führer Lajos	17.03.1903	M	adult	Anseriformes
Anas crecca	Geaca (CJ)	Vincze Ferencz	30.09.1971	F		Anseriformes
Anas crecca	Geaca (CJ)	Vincze Ferencz	08.10.1971	M	juvenile	Anseriformes
Anas crecca	Geaca (CJ)	Vincze Ferencz	08.10.1971	F		Anseriformes
Anas platyrhynchos	Hăghig (CV)	Führer Lajos	11.01.1903	F		Anseriformes
Anas platyrhynchos				F		Anseriformes
Anser albifrons	Cefa (BH)	Vincze Ferencz	19.12.1970	F	juvenile	Anseriformes
Anser albifrons					juvenile	Anseriformes
Anser fabalis	Hortobágy (HU)	Teleky O.	xx.04.1907	F		Anseriformes
Anser fabalis	-					Anseriformes
Anthus campestris	Suatu (CJ)	Führer Lajos	xx.06.1911	M		Passeriformes
Anthus cervinus		Führer Lajos				Passeriformes
Anthus spinoletta	Răscruci (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Anthus trivialis	Apahida (CJ)	Führer Lajos	xx.10.1909	F		Passeriformes
Anthus trivialis	Apahida (CJ)	Führer Lajos	xx.10.1909	F		Passeriformes
Anthus trivialis	Cuzăplac (SJ)	Kómis Lajos	18.10.1913	M		Passeriformes
Anthus trivialis	Florești (CJ)	Führer Lajos	xx.03.1913			Passeriformes
Anthus trivialis						Passeriformes
Aquila heliaca	Sibiu (SB)	Führer Lajos	xx.08.1907	F	adult	Accipitriformes
Aquila heliaca	Sibiu (SB)	Führer Lajos	xx.08.1907	M	juvenile	Accipitriformes
Ardea alba	Mociu (CJ)	Führer Lajos	xx.10.1909	M		Pelecaniformes
Ardea alba	Mociu (CJ)	Führer Lajos	xx.10.1909	F		Pelecaniformes
Ardea cinerea	Băgara (CJ)	Führer Lajos	xx.04.1910	F	adult	Pelecaniformes
Ardea cinerea	Cefa (BH)	Vincze Ferencz	23.06.1970	M	adult	Pelecaniformes
Ardea cinerea	Cefa (BH)	Vincze Ferencz	23.06.1970	M	adult	Pelecaniformes
Ardea cinerea	Cefa (BH)	Vincze Ferencz	23.06.1970	M	adult	Pelecaniformes
Ardea cinerea	Cefa (BH)	Vincze Ferencz	23.06.1970	F	juvenile	Pelecaniformes
				900	,	

Species	Location	Name of collector	Data	Sex		Order
Ardea cinerea	Cefa (BH)	Vincze Ferencz	23.06.1970	F	juvenile	Pelecaniformes
Ardea cinerea	Mociu (CJ)	Führer Lajos	xx.04.1910	M	adult	Pelecaniformes
Ardea cinerea	Răscruci (CJ)	Führer Lajos	xx.10.1909	F	juvenile	Pelecaniformes
Ardea cinerea	Ţaga (CJ)	Ajtai K. Gyula	03.05.1910	F	immatur	Pelecaniformes
Ardea cinerea			xx.xx.1911		adult	Pelecaniformes
Ardea cinerea			xx.xx.1911		adult	Pelecaniformes
Ardea cinerea			xx.xx.1911		adult	Pelecaniformes
Ardea cinerea			xx.xx.1911		adult	Pelecaniformes
Ardea purpurea	Băgara (CJ)	Führer Lajos	xx.04.1910	F	adult	Pelecaniformes
Ardea purpurea	Geaca (CJ)	Vincze Ferencz	15.09.1972	F	juvenile	Pelecaniformes
Ardea purpurea	Geaca (CJ)	Führer Lajos	xx.xx.1911		adult	Pelecaniformes
Ardea purpurea		,			juvenile	Pelecaniformes
Ardeola ralloides	Cefa (BH)	Vincze Ferencz	24.06.1970	M	adult	Pelecaniformes
Asio flammeus	Apahida (CJ)	Führer Lajos	xx.03.1911	F	adult	Strigiformes
Asio flammeus	Borş (BH)	Führer Lajos	15.01.1906	F	adult	Strigiformes
Asio flammeus	Borş (BH)	Führer Lajos	15.01.1906	M	adult	Strigiformes
Asio flammeus	Cluj-Napoca (CJ)	Kómis Lajos	30.11.1913	F	adult	Strigiformes
Asio flammeus	sim) i impositi (s)/	11011110 = 11)00	0 012 212 9 20		adult	Strigiformes
Asio flammeus				M	adult	Strigiformes
Asio flammeus				F	adult	Strigiformes
Asio flammeus				F	adult	Strigiformes
Asio flammeus				•	adult	Strigiformes
Asio flammeus					adult	Strigiformes
Asio flammeus				F	adult	Strigiformes
v	Raia Mara (MM)	Sitar Cristian	xx.12.2010	Г	adult	
Asio otus	Baia Mare (MM)	Vincze Ferencz		F	adult	Strigiformes
Asio otus	Cefa (BH)		19.12.1970			Strigiformes
Asio otus	Hortobágy (HU)	Nagy Jenő	xx.04.1907	M	adult	Strigiformes
Asio otus	Przewtoka (UA)	Kómis Lajos	06.04.1916	M	adult	Strigiformes
Asio otus	Turda (CJ)		xx.04.1893		adult	Strigiformes
Asio otus		Trust T	1011		adult	Strigiformes
Athene noctua		Führer Lajos	xx.xx.1911		adult	Strigiformes
Athene noctua	Sărmășel - Gară (MS)	Osváth Gergely	14.05.2020		adult	Strigiformes
Aythya ferina	Cefa (BH)	Vincze Ferencz	24.06.1970	F	juvenile	Anseriformes
Aythya ferina	Geaca (CJ)	Vincze Ferencz	04.06.1970	M	adult	Anseriformes
Aythya nyroca	Apahida (CJ)	Führer Lajos	xx.09.1909	F		Anseriformes
Aythya nyroca	Cefa (BH)	Vincze Ferencz	24.06.1970	F		Anseriformes
Aythya nyroca	Geaca (CJ)	Vincze Ferencz	03.06.1970	F		Anseriformes
Aythya nyroca	Geaca (CJ)	Vincze Ferencz	30.09.1971	F		Anseriformes
Aythya nyroca	Geaca (CJ)	Vincze Ferencz	03.06.1970	F	adult	Anseriformes
Aythya nyroca					adult	Anseriformes
Bombycilla garrulus	Cluj-Napoca (CJ)	Zwörner Sándor	18.12.1903	M		Passeriformes
Bombycilla garrulus	Cluj-Napoca (CJ)	Führer Lajos	10.11.1903	M		Passeriformes
Bombycilla garrulus	Cluj-Napoca (CJ)	Führer Lajos	10.11.1903	M		Passeriformes
Bombycilla garrulus	Cluj-Napoca (CJ)	Führer Lajos	10.11.1903	F		Passeriformes
Bombycilla garrulus				M		Passeriformes
Bombycilla garrulus				M		Passeriformes
Bombycilla garrulus				M		Passeriformes
Bombycilla garrulus				M		Passeriformes
Bombycilla garrulus				M		Passeriformes
Bombycilla garrulus				M		Passeriformes
Buteo buteo	Apahida (CJ)	Führer Lajos	xx.07.1912	F		Accipitriformes
Buteo buteo	Apahida (CJ)	Führer Lajos	xx.07.1912	М		Accipitriformes
Buteo buteo	Ardeal	- 411141 Enjoy	xx.12.1863	M		Accipitriformes
Buteo buteo	Borșa (CJ)	Führer Lajos	29.03.1906	M		Accipitriformes
Buteo buteo	Cluj-Napoca (CJ)	Fülöp Herman	25.02.1960	M		Accipitriformes
	*	тиюр глеппап				
Buteo buteo	Cluj-Napoca (CJ)		xx.02.1913	M		Accipitriformes

Species	Location	Name of collector	Data	Sex	Age	Order
Buteo buteo	Cluj-Napoca (CJ)	Führer Lajos	19.07.1905	M		Accipitriformes
Buteo buteo	Cluj-Napoca (CJ)	Ajtai K. Gyula	11.10.1909	F		Accipitriformes
Buteo buteo	Cristian (BV)	Lánczy I.	25.01.1903	F		Accipitriformes
Buteo buteo	Dej (CJ)	Zwörner Sándor	08.01.1904			Accipitriformes
Buteo buteo	Făgăraș (BV)	Zwörner Sándor	01.05.1903	M		Accipitriformes
Buteo buteo	Florești (CJ)		xx.xx.1913	F		Accipitriformes
Buteo buteo	Florești (CJ)	Führer Lajos	xx.10.1913	M		Accipitriformes
Buteo buteo	Grădina Zoologică din Târgu Mureș	Bereczki Boldizsár	15.02.1985			Accipitriformes
Buteo buteo	Grădina Zoologică din Târgu Mureș	Bereczki Boldizsár	15.02.1985			Accipitriformes
Buteo buteo	Miskolc (HU)	Herman Ottó?	xx.12.1863	F		Accipitriformes
Buteo buteo						Accipitriformes
Buteo buteo						Accipitriformes
Buteo buteo						Accipitriformes
Buteo buteo						Accipitriformes
Buteo buteo						Accipitriformes
Buteo buteo						Accipitriformes
Buteo buteo						Accipitriformes
Buteo buteo						Accipitriformes
Buteo buteo		Fülöp Herman				Accipitriformes
Buteo buteo		•				Accipitriformes
Buteo buteo	Delniţa (CJ)	Miklós Réka, Osváth Gergely	12.10.2020		immatur	Accipitriformes
Buteo lagopus	Apahida (CJ)	8 7	xx.02.1913	F	adult	Accipitriformes
Buteo lagopus	Cluj-Napoca (CJ)	Führer Lajos	07.02.1905	F	adult	Accipitriformes
Buteo lagopus	Cluj-Napoca (CJ)	Herman Ottó?	xx.xx.1865	M	adult	Accipitriformes
Buteo lagopus	) ()			M	adult	Accipitriformes
Buteo lagopus				F?	adult	Accipitriformes
Buteo lagopus				F	adult	Accipitriformes
Buteo rufinus	Europa de Sud-Est			M	acture	Accipitriformes
Buteo rufinus	Răscruci (CJ)	Führer Lajos	xx.10.1909	M		Accipitriformes
Calidris minuta	Apahida (CJ)	Führer Lajos	xx.05.1911	M	adult	Charadriiformes
Calidris minuta	ripanida (Cj)	Tunici Lajos	XX.07.1711	141	adult	Charadriiformes
Calidris minuta	Someşeni (CJ)	Führer Lajos	xx.05.1911	M	adult	Charadriiformes
	Cătina (CJ)	Zwörner Sándor	11.05.1904	F	adult	Charadriiformes
Calidris pugnax	· •		xx.04.1907		adult	Charadriiformes
Calidris pugnax	Hortobágy (HU)	Nagy Jenő	xx.04.190/	F		
Calidris pugnax	C1 : N (CI)	rel I	0/1011	M	adult	Charadriiformes
Caprimulgus europaeus	Cluj-Napoca (CJ)	Führer Lajos	xx.04.1911	M		Caprimulgiformes
Caprimulgus europaeus	Cluj-Napoca (CJ)	Führer Lajos	10.10.1912	F		Caprimulgiformes
Caprimulgus europaeus	Cluj-Napoca (CJ)	Führer Lajos	xx.04.1911	M		Caprimulgiformes
Caprimulgus europaeus	Cluj-Napoca (CJ)	Führer Lajos	xx.04.1911	M		Caprimulgiformes
Caprimulgus europaeus	Cluj-Napoca (CJ)	Führer Lajos	xx.04.1911	M		Caprimulgiformes
Caprimulgus europaeus	Feleacu (CJ)	Führer Lajos	xx.04.1911	F		Caprimulgiformes
Caprimulgus europaeus	Florești (CJ)	Vincze Ferencz	18.05.1970	F		Caprimulgiformes
Caprimulgus europaeus						Caprimulgiformes
Caprimulgus europaeus						Caprimulgiformes
Caprimulgus europaeus						Caprimulgiformes
Caprimulgus europaeus						Caprimulgiformes
Carduelis carduelis	Pădureni (CJ)	Vincze Ferencz	02.02.1985		adult	Passeriformes
Certhia familiaris	Cuzăplac (SJ)	Kómis Lajos	xx.04.1912	F		Passeriformes
Certhia familiaris	Feleacu (CJ)	Führer Lajos	xx.05.1911	M		Passeriformes
Certhia familiaris	Feleacu (CJ)	Führer Lajos	xx.04.1911	M	adult	Passeriformes
Certhia familiaris						Passeriformes
German Junior						
Certhia familiaris						Passeriformes
•						Passeriformes Passeriformes

Species	Location	Name of collector	Data	Sex	Age	Order
Charadrius dubius	Cluj-Napoca (CJ)	Zwörner Sándor	15.04.1904	F		Charadriiformes
Charadrius dubius	Florești (CJ)	Führer Lajos	xx.04.1913	M		Charadriiformes
Charadrius dubius	Cluj-Napoca (CJ)	Führer Lajos	xx.05.1911	F		Charadriiformes
Charadrius dubius	Cluj-Napoca (CJ)	Führer Lajos	xx.05.1911	M		Charadriiformes
Charadrius dubius	Cluj-Napoca (CJ)	Zwörner Sándor	18.04.1904	M		Charadriiformes
Chlidonias hybrida	Apahida (CJ)	Führer Lajos	xx.09.1909	F	adult	Charadriiformes
Chlidonias hybrida	Apahida (CJ)	Führer Lajos	xx.09.1909	F	adult	Charadriiformes
Chlidonias hybrida	Apahida (CJ)	Führer Lajos	xx.09.1909	M	adult	Charadriiformes
Chlidonias hybrida	Apahida (CJ)	Führer Lajos	xx.10.1909	M	adult	Charadriiformes
Chlidonias hybrida	Apahida (CJ)	Führer Lajos	xx.10.1909	F	adult	Charadriiformes
Chlidonias niger		,			juvenile	Charadriiformes
Chlidonias niger	Apahida (CJ)	Führer Lajos	xx.09.1909	M	adult	Charadriiformes
Chlidonias niger	Brașov (BV)	Zwörner Sándor	08.07.1903	M	adult	Charadriiformes
Chlidonias niger	Geaca (CJ)	Vincze Ferencz	30.08.1971	F	juvenile	Charadriiformes
Chloris chloris	Cluj-Napoca (CJ)		04.03.1985	M	adult	Passeriformes
Chloris chloris	Cuzăplac (SJ)	Kómis Lajos	16.10.1913	F	adult	Passeriformes
Chloris chloris	1 (3)	,		F	adult	Passeriformes
Chloris chloris				F	adult	Passeriformes
Ciconia ciconia	Dezmir (CJ)	Fülöp Herman	18.08.1958	F	juvenile	Ciconiiformes
Ciconia ciconia	Grădina Zoologică din Turda	Vincze Ferencz	10.11.1971	M	adult	Ciconiiformes
Ciconia ciconia	Someșeni (CJ)	Vincze Ferencz	10.10.1972	M	adult	Ciconiiformes
Ciconia ciconia	, , ,		xx.xx.1911		adult	Ciconiiformes
Ciconia ciconia			xx.xx.1911		adult	Ciconiiformes
Ciconia ciconia					adult	Ciconiiformes
Ciconia nigra	Răscruci (CJ)	Führer Lajos	xx.10.1909	F	juvenile	Ciconiiformes
Ciconia nigra	( - ),			F	juvenile	Ciconiiformes
Ciconia nigra		Führer Lajos	xx.xx.1911	M	adult	Ciconiiformes
Cinclus cinclus	Bradu (NT)	Vincze Ferencz	10.05.1971	F		Passeriformes
Cinclus cinclus	Cluj-Napoca (CJ)	Ajtai K. Gyula	18.11.1909	M		Passeriformes
Cinclus cinclus	Someșul rece (CJ)	Vincze Ferencz	06.09.1970	M	juvenile	Passeriformes
Cinclus cinclus	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		xx.xx.1912		,	Passeriformes
Cinclus cinclus			xx.xx.1912			Passeriformes
Cinclus cinclus			xx.xx.1912			Passeriformes
Cinclus cinclus			AA,AA,1)12			Passeriformes
Cinclus cinclus	Mara (MM)	Deák József	10.08.1961			Passeriformes
Circaetus gallicus	Sibiu (SB)	Führer Lajos	xx.07.1907	M		Accipitriformes
Circus aeruginosus	Florești (CJ)	Führer Lajos	xx.xx.1911	M	juvenile	Accipitriformes
Circus aeruginosus	Hăghig (CV)	Führer Lajos	01.05.1903	F	adult	Accipitriformes
Circus cyaneus	riaging (CV)	rumer Lajos	01.05.1705	F	adult	Accipitriformes
Clanga clanga	Bonţida (CJ)	Führer Lajos	xx.02.1910	F	juvenile	Accipitriformes
	,	Führer Lajos		M?	,	•
Clanga clanga	Bonţida (CJ)	,	xx.02.1910	F	juvenile	Accipitriformes
Clanga clanga	Gilău (CJ)	Führer Lajos	23.03.1896			Accipitriformes
Clanga pomarina	Apahida (CJ)	Führer Lajos	xx.04.1911	F	1	Accipitriformes
Clanga pomarina	Cuzăplac (SJ)	Führer Lajos	20.01.1914	F	juvenile	Accipitriformes
Clanga pomarina	Feleacu (CJ)	Führer Lajos	xx.05.1911	F		Accipitriformes
Clanga pomarina					adult	Accipitriformes
Clanga pomarina					adult	Accipitriformes
Clanga pomarina				• -	adult	Accipitriformes
Coccothraustes	Someșeni (CJ)		12.09.1972	M		Passeriformes
coccothraustes	(01)	Tui T	0/1011	-		0.1.1.6
Columba oenas	Cluj-Napoca (CJ)	Führer Lajos	xx.06.1911	F	adult	Columbiformes
Columba oenas	Cordoş (MS)	Führer Lajos	xx.07.1911	M	adult	Columbiformes
Columba oenas	Feleacu (CJ)	Führer Lajos	xx.04.1911	M	adult	Columbiformes
Columba oenas					adult	Columbiformes
Columba oenas					adult	Columbiformes
Columba oenas		Führer Lajos	xx.xx.1911		adult	Columbiformes

Species	Location	Name of collector	Data	Sex	Age	Order
Coracias garrulus	Bicaz (NT)	Führer Lajos	xx.07.1910	F		Coraciiformes
Corvus cornix	Someșeni (CJ)	Neuwirth János	24.03.1903	M		Passeriformes
Corvus frugilegus						Passeriformes
Corvus frugilegus						Passeriformes
Corvus monedula	Cluj-Napoca (CJ)	Zwörner Sándor	02.02.1904	M	adult	Passeriformes
Corvus monedula	Cluj-Napoca (CJ)	Zwörner Sándor	19.11.1903	F		Passeriformes
Corvus monedula	Turea (CJ)	Führer Lajos	23.08.1903	M	adult	Passeriformes
Corvus monedula				M		Passeriformes
Coturnix coturnix	Apahida (CJ)	Führer Lajos	xx.09.1909	M	juvenile	Galliformes
Coturnix coturnix	Gilău (CJ)	Führer Lajos	xx.09.1909	M		Galliformes
Crex crex	Apahida (CJ)	Zwörner Sándor	05.06.1903	F		Gruiformes
Crex crex	Cluj-Napoca (CJ)		05.09.1902	M		Gruiformes
Crex crex	Geaca (CJ)	Herman Ottó	xx.04.1867	M	adult	Gruiformes
Cuculus canorus	Aghireş (CJ)	Führer Lajos	xx.09.1909	M	adult	Cuculiformes
Cuculus canorus	Aghireş (CJ)	Führer Lajos	xx.09.1909	M	adult	Cuculiformes
Cuculus canorus	Ceahlău (NT)	Vincze Ferencz	08.05.1971	M	adult	Cuculiformes
Cuculus canorus	Cluj-Napoca (CJ)	Vincze Ferencz	25.09.1971	F	juvenile	Cuculiformes
Cuculus canorus	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1912	M	adult	Cuculiformes
Cuculus canorus	Cluj-Napoca (CJ)	Führer Lajos	xx.04.1911	M	adult	Cuculiformes
Cuculus canorus	Cluj-Napoca (CJ)	Führer Lajos	xx.04.1911	M	adult	Cuculiformes
Cuculus canorus	Cluj-Napoca (CJ)	Führer Lajos	xx.04.1911	M	adult	Cuculiformes
Cuculus canorus	Cluj-Napoca (CJ)	Führer Lajos	xx.xx.1912	M	juvenile	Cuculiformes
Cuculus canorus	Feleacu (CJ)	Führer Lajos	xx.04.1911	F	adult	Cuculiformes
Cuculus canorus	Feleacu (CJ)	Führer Lajos	xx.04.1911	M	adult	Cuculiformes
Cuculus canorus	Pănade (AB)	Führer Lajos	xx.09.1909	M	adult	Cuculiformes
Cuculus canorus	Turnu Roşu (SB)	Ajtai K. Gyula	12.04.1910	M	adult	Cuculiformes
Cyanistes caeruleus	Cluj-Napoca (CJ)	Führer Lajos	18.11.1913	M		Passeriformes
Cyanistes caeruleus	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912	M		Passeriformes
Cyanistes caeruleus	Cluj-Napoca (CJ)	Führer Lajos	xx.03.1910	M		Passeriformes
Cyanistes caeruleus	Cluj-Napoca (CJ)	Ajtai K. Gyula	11.02.1910	M		Passeriformes
Cyanistes caeruleus	Florești (CJ)	Neuwirth János	26.03.1903	M		Passeriformes
Cyanistes caeruleus	Micești (CJ)	Führer Lajos	xx.11.1909	M		Passeriformes
Cyanistes caeruleus	Timetçer (Cy)	1 411101 24)00	111111111111111111111111111111111111111			Passeriformes
Cyanistes caeruleus						Passeriformes
Cyanistes caeruleus						Passeriformes
Delichon urbicum	Apahida (CJ)	Führer Lajos	xx.09.1909	M		Passeriformes
Delichon urbicum	Apahida (CJ)	Führer Lajos	xx.09.1909	M		Passeriformes
Delichon urbicum	Apahida (CJ)	Führer Lajos	xx.09.1909	M		Passeriformes
Dendrocopos leucotos	Almaşu (SJ)	Kómis Lajos	15.01.1914	M	adult	Piciformes
Dendrocopos major	Cluj-Napoca (CJ)	Zwörner Sándor	14.02.1903	F	adult	Piciformes
Dendrocopos major	Plesca (SJ)	Führer Lajos	26.03.1903	F	adult	Piciformes
	riesca (3j)	runter Lajos	20.03.1903	M	adult	Piciformes
Dendrocopos major				F	adult	Piciformes
Dendrocopos major	A1L - J1: - (AD)	S C O/4 C	22.02.2019			Piciformes
Dendrocopos major	Alba Iulia (AB)	Savu George, Osváth Gergely	23.02.2018	M	adult	
Dryobates minor	Feleacu (CJ)	Führer Lajos	xx.04.1909	M		Piciformes
Dryobates minor	Feleacu (CJ)	Führer Lajos	xx.04.1909	M		Piciformes
Dryocopus martius	Colibița (BN)	Vincze Ferencz	06.05.1971	M		Piciformes
Dryocopus martius	Măguri-Răcătău (CJ)	Vincze Ferencz	03.08.1970	F		Piciformes
Dryocopus martius	C C (DII)	174 E	26051050			Piciformes
Egretta garzetta	Cefa (BH)	Vincze Ferencz	26.07.1970	M		Pelecaniformes
Egretta garzetta	Cefa (BH)	Vincze Ferencz	23.0.06.1970	m		Pelecaniformes
Emberiza citrinella	Cluj-Napoca (CJ)	Fülöp Herman	31.01.1960	M		Passeriformes
Emberiza citrinella	Someșeni (CJ)	Vincze Ferencz	25.11.1972	M		Passeriformes
Emberiza citrinella						Passeriformes
Emberiza citrinella					immatur	Passeriformes
Emberiza citrinella		3° =2°		M?	immatur	Passeriformes
Eremophila alpestris	Florești (CJ)	Führer Lajos	xx.04.1911	M	adult	Passeriformes

Species	Location	Name of collector	Data	Sex	Age	Order
Eremophila alpestris	Florești (CJ)	Führer Lajos	xx.04.1911	M	adult	Passeriformes
Erithacus rubecula	Cluj-Napoca (CJ)	Führer Lajos	xx.08.1905	M		Passeriformes
Erithacus rubecula	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Erithacus rubecula	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Erithacus rubecula	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Erithacus rubecula	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912	M		Passeriformes
Erithacus rubecula	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912	M		Passeriformes
Erithacus rubecula	Făget (CJ)	Führer Lajos	xx.10.1909	F		Passeriformes
Erithacus rubecula	Florești (CJ)	Führer Lajos	xx.03.1913	M		Passeriformes
Erithacus rubecula		V 8 * V 8	xx.10.1910	F		Passeriformes
Erithacus rubecula						Passeriformes
Estrilda troglodytes	Apahida (CJ)	Führer Lajos	xx.09.1912	M	adult	Passeriformes
Eupsaltria australis	Victoria (AU)	Gasilemaine	xx.07.1897			Passeriformes
Falco cherrug	Bonțida (CJ)	Führer Lajos	xx.04.1911	F		Falconiformes
Falco cherrug	Bonţida (CJ)	Führer Lajos	xx.04.1911	F	adult	Falconiformes
Falco cherrug	Răscruci (CJ)	Führer Lajos	xx.02.1910	M		Falconiformes
Falco cherrug	Răscruci (CJ)	Führer Lajos	xx.11.1909	M		Falconiformes
Falco cherrug	1 4801 401 (3))			M	adult	Falconiformes
Falco cherrug				F	adult	Falconiformes
Falco cherrug				M	adult	Falconiformes
Falco cherrug				F	juvenile	Falconiformes
Falco cherrug				F	adult	Falconiformes
Falco cherrug				M	adult	Falconiformes
Falco cherrug				F	adult	Falconiformes
Falco cherrug	Răscruci (CJ)		xx.03.1911	M	adult	Falconiformes
Falco naumanni	Cluj-Napoca (CJ)	Führer Lajos	01.09.1905	M	adult	Falconiformes
Falco peregrinus	Aghireş (CJ)	Tunici Lajos	xx.03.1910	M	adult	Falconiformes
Falco peregrinus	riginics (CJ)		XX.03.1710	F	juvenile	Falconiformes
Falco subbuteo	Cluj-Napoca (CJ)	Herman Ottó?	xx.xx.1864	M	juvenile	Falconiformes
Falco subbuteo	Cluj-Napoca (CJ)	Herman Ottó?	xx.xx.1864	F	adult	Falconiformes
raico subbuteo Falco subbuteo		Herman Ottó?	xx.xx.1864	M		Falconiformes
raico subbuteo Falco subbuteo	Cluj-Napoca (CJ)	Vincze Ferencz	07.09.1970		adult	Falconiformes Falconiformes
	Geaca (CJ)	vincze rerencz		M	adult	
Falco subbuteo	Turea (CJ)		27.08.1965	M	adult	Falconiformes Falconiformes
Falco subbuteo					adult	
Falco subbuteo		77 " 07 1	260/1002		adult	Falconiformes
Falco tinnunculus	Cluj-Napoca (CJ)	Zwörner Sándor	26.04.1903	M	adult	Falconiformes
Falco tinnunculus	Florești (CJ)	Vincze Ferencz	13.08.1970	M	adult	Falconiformes
Falco tinnunculus	Galiția de Est		29.04.1916	F		Falconiformes
Falco tinnunculus				F	juvenile	Falconiformes
Falco tinnunculus		-2		M	juvenile	Falconiformes
Falco vespertinus	Răscruci (CJ)	Führer Lajos	xx.05.1910	F	adult	Falconiformes
Ficedula albicollis	Feleacu (CJ)	Führer Lajos	xx.05.1911	M	adult	Passeriformes
Ficedula albicollis	Gilău (CJ)	Führer Lajos	xx.05.1911	M	adult	Passeriformes
Ficedula albicollis	Gilău (CJ)	Führer Lajos	xx.05.1911	M	adult	Passeriformes
Ficedula albicollis	Gilău (CJ)	Führer Lajos	xx.06.1911	M	adult	Passeriformes
Ficedula albicollis				M	adult	Passeriformes
Ficedula hypoleuca	Aghireş (CJ)	Führer Lajos	xx.09.1909	M	adult	Passeriformes
Ficedula hypoleuca	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1909	M	adult	Passeriformes
Ficedula hypoleuca	Cluj-Napoca (CJ)	Führer Lajos	xx.08.1912	M	adult	Passeriformes
Ficedula hypoleuca	Făget (CJ)	Führer Lajos	xx.09.1909	M	juvenile	Passeriformes
Ficedula hypoleuca	Feleacu (CJ)	Führer Lajos	xx.05.1911	M	adult	Passeriformes
Ficedula hypoleuca	Gilău (CJ)	Führer Lajos	xx.05.1911	F	adult	Passeriformes
Ficedula hypoleuca	Gilău (CJ)	Führer Lajos	xx.05.1911	M	adult	Passeriformes
Ficedula hypoleuca	Gilău (CJ)	Führer Lajos	xx.06.1911	M	adult	Passeriformes
Ficedula hypoleuca	-	,		M	adult	Passeriformes
Ficedula parva	Făget (CJ)	Führer Lajos	xx.09.1909	F	juvenile	Passeriformes
Ficedula parva	Făget (CJ)	Führer Lajos	xx.09.1909	M	juvenile	Passeriformes
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Species	Location	Name of collector	Data	Sex	Age	Order
Ficedula parva	Făget (CJ)	Führer Lajos	xx.05.1911		juvenile	Passeriformes
Fringilla montifringilla				F		Passeriformes
Fringilla montifringilla				F		Passeriformes
Fringilla montifringilla				M		Passeriformes
Fringilla montifringilla				M		Passeriformes
Fulica atra	Geaca (CJ)	Herman Ottó	xx.03.1867			Gruiformes
Fulica atra	Geaca (CJ)	Herman Ottó	xx.03.1867	M		Gruiformes
Fulica atra	Geaca (CJ)	Vincze Ferencz	15.10.1971	M		Gruiformes
Fulica atra	Geaca (CJ)	Vincze Ferencz	15.10.1971	F		Gruiformes
Fulica atra		Vincze Ferencz	22.11.1973			Gruiformes
Fulica atra		Vincze Ferencz	22.11.1973			Gruiformes
Fulmarus glacialis					adult	Procelariiformes
Galerida cristata	Apahida (CJ)	Führer Lajos	27.10.1912	M		Passeriformes
Galerida cristata	Cluj-Napoca (CJ)	Zwörner Sándor	25.04.1904	M		Passeriformes
Galerida cristata	Cluj-Napoca (CJ)	Führer Lajos	20.02.1913	M		Passeriformes
Galerida cristata	Cluj-Napoca (CJ)	Führer Lajos	13.03.1903	M		Passeriformes
Galerida cristata	Ţaga (CJ)	Fülöp Herman	31.01.1960	F		Passeriformes
Galerida cristata	Ţaga (CJ)	Fülöp Herman	31.01.1960	M		Passeriformes
Galerida cristata						Passeriformes
Gallinula chloropus	Apahida (CJ)	Führer Lajos	xx.11.1909	M	adult	Gruiformes
Gallinula chloropus	Sucutard (CJ)	Vincze Ferencz	20.10.1971		juvenile	Gruiformes
Gallinula chloropus	Ţaga (CJ)	Ajtai K. Gyula	02.05.1910	M	adult	Gruiformes
Gallinula chloropus					adult	Gruiformes
Gallinago gallinago	Aghireş (CJ)	Führer Lajos	xx.09.1909	M		Charadriiformes
Gallinago gallinago	Apahida (CJ)	Führer Lajos	xx.08.1912		juvenile	Charadriiformes
Gallinago gallinago	Mociu (CJ)	Führer Lajos	xx.11.1909	F	•	Charadriiformes
Gallinago gallinago	Mociu (CJ)	Führer Lajos	xx.11.1909	M		Charadriiformes
Gallinago gallinago						Charadriiformes
Gypaetus barbatus	Tibet (Asia)			M	adult	Accipitriformes
Gyps fulvus		Führer Lajos	xx.07.1907	F	juvenile	Accipitriformes
Haliaeetus albicilla	Răscruci (CJ)	Führer Lajos	xx.11.1909	F	juvenile	Accipitriformes
Haliaeetus albicilla	Zau de Câmpie (MS)	Führer Lajos	xx.08.1907	F	juvenile	Accipitriformes
Haliaeetus albicilla	Zau de Câmpie (MS)	Führer Lajos	xx.08.1907	F	immatur	Accipitriformes
Haliaeetus albicilla	Zau de Câmpie (MS)	Führer Lajos	xx.07.1907	F	subadult	Accipitriformes
Haliaeetus albicilla	Zau de Câmpie (MS)	Führer Lajos	xx.08.1907	F	immatur	Accipitriformes
Hieraaetus pennatus	Răscruci (CJ)	Führer Lajos	xx.10.1909	M	juvenile	Accipitriformes
Hieraaetus pennatus	Răscruci (CJ)	Führer Lajos	xx.10.1909	M	juvenile	Accipitriformes
Hieraaetus pennatus	Răscruci (CJ)	Führer Lajos	xx.10.1909	M	juvenile	Accipitriformes
Hieraaetus pennatus	Răscruci (CJ)	Führer Lajos	xx.10.1909	M		Accipitriformes
Hieraaetus pennatus						Accipitriformes
Himantopus himantopus	Mociu (CJ)	Führer Lajos	xx.11.1909	F	juvenile	Charadriiformes
Himantopus himantopus						Charadriiformes
Hippolais icterina	Cluj-Napoca (CJ)	Korodi-Gál János	28.05.1965	M	adult	Passeriformes
Hippolais icterina	Cluj-Napoca (CJ)	Korodi-Gál János	28.05.1965	F	adult	Passeriformes
Hippolais icterina	Cluj-Napoca (CJ)	Korodi-Gál János	28.05.1965	M	adult	Passeriformes
Hippolais icterina	Cluj-Napoca (CJ)	Korodi-Gál János	28.05.1965	M	adult	Passeriformes
Hirundo rustica	Apahida (CJ)	Führer Lajos	xx.09.1909	F	adult	Passeriformes
Hirundo rustica	Apahida (CJ)	Führer Lajos	xx.09.1909	F	adult	Passeriformes
Hirundo rustica	Apahida (CJ)	Führer Lajos	xx.09.1909	F	juvenile	Passeriformes
Hirundo rustica	Apahida (CJ)	Führer Lajos	xx.09.1909	F	adult	Passeriformes
Hirundo rustica	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912	1y		Passeriformes
Hirundo rustica	Florești (CJ)	Führer Lajos	xx.05.1913	F	adult	Passeriformes
Hirundo rustica	Florești (CJ)	Führer Lajos	xx.05.1913	F	adult	Passeriformes
Hirundo rustica	, , , , , ,	,		F		Passeriformes
Iduna pallida	Cluj-Napoca (CJ)	Korodi-Gál János	28.05.1965	F	adult	Passeriformes
Ixobrychus minutus	Răscruci (CJ)	Führer Lajos	xx.10.1909	M	adult	Pelecaniformes
Jynx torquilla	Florești (CJ)	Führer Lajos	xx.04.1913	M	-	Piciformes
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Species	Location	Name of collector	Data	Sex	Age	Order
Jynx torquilla	Gilău (CJ)	Führer Lajos	xx.09.1909	F		Piciformes
Jynx torquilla	Viștea (CJ)	Führer Lajos	xx.09.1909	F		Piciformes
Lanius collurio	Baciu (CJ)	Ajtai K. Gyula	26.05.1910	M		Passeriformes
Lanius collurio	Cluj-Napoca (CJ)	Führer Lajos	01.08.1905	M		Passeriformes
Lanius collurio	Cluj-Napoca (CJ)	Führer Lajos	27.07.1905	F		Passeriformes
Lanius collurio	Cluj-Napoca (CJ)		xx.07.1891	M		Passeriformes
Lanius collurio	Cluj-Napoca (CJ)	Führer Lajos	xx.05.1910	M		Passeriformes
Lanius collurio	Cluj-Napoca (CJ)	Vincze Ferencz	03.08.1970	F		Passeriformes
Lanius collurio	Cluj-Napoca (CJ)	Führer Lajos	xx.08.1912	F	juvenile	Passeriformes
Lanius collurio	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1909		juvenile	Passeriformes
Lanius collurio	Cuzăplac (SJ)		16.07.1913	F		Passeriformes
Lanius collurio	Gilău (CJ)	Führer Lajos	xx.10.1909		juvenile	Passeriformes
Lanius collurio	Gilău (CJ)	Führer Lajos	xx.10.1909		juvenile	Passeriformes
Lanius collurio				M		Passeriformes
Lanius collurio				M		Passeriformes
Lanius excubitor	Cuzăplac (SJ)	Kómis Lajos	16.12.1913	M	adult	Passeriformes
Lanius excubitor	Florești (CJ)	Führer Lajos	xx.12.1912		juvenile	Passeriformes
Lanius excubitor	Florești (CJ)	Führer Lajos	xx.12.1912	M	adult	Passeriformes
Lanius excubitor	Someșeni (CJ)	Vincze Ferencz	22.10.1972	M	adult	Passeriformes
Lanius minor	Baciu (CJ)	Führer Lajos	xx.05.1910	M	adult	Passeriformes
Lanius minor						Passeriformes
Larus canus	Apahida (CJ)	Führer Lajos	xx.02.1910	M	immatur	Charadriiformes
Larus canus	Hortobágy (HU)	Nagy Jenő	xx.04.1907	F	adult	Charadriiformes
Larus canus	Zau de Câmpie (MS)		xx.03.1911	F	adult	Charadriiformes
Larus canus	Zau de Câmpie (MS)		xx.03.1911	M	adult	Charadriiformes
Larus fuscus	Someșeni (CJ)		xx.10.1902	F	juvenile	Charadriiformes
Larus marinus					adult	Charadriiformes
Larus michahellis	Apahida (CJ)	Führer Lajos	xx.11.1909	F		Charadriiformes
Larus michahellis	Apahida (CJ)	Führer Lajos	xx.11.1909	F		Charadriiformes
Larus michahellis					immatur	Charadriiformes
Larus michahellis					adult	Charadriiformes
Larus ridibundus	Apahida (CJ)	Führer Lajos	xx.10.1909	F	adult	Charadriiformes
Larus ridibundus	Apahida (CJ)	Führer Lajos	xx.10.1909	F	juvenile	Charadriiformes
Larus ridibundus	Apahida (CJ)	Führer Lajos	xx.11.1909	M	juvenile	Charadriiformes
Larus ridibundus	Dezmir (CJ)	Führer Lajos	xx.11.1909	F	juvenile	Charadriiformes
Larus ridibundus	Mociu (CJ)	Führer Lajos	xx.11.1909	M	juvenile	Charadriiformes
Larus ridibundus	Mociu (CJ)	Führer Lajos	xx.06.1910	F	adult	Charadriiformes
Larus ridibundus	Mociu (CJ)	Führer Lajos	xx.06.1910	M	adult	Charadriiformes
Larus ridibundus	Mociu (CJ)	Führer Lajos	xx.06.1910	M	adult	Charadriiformes
Larus ridibundus					adult	Charadriiformes
Larus ridibundus	Zau de Câmpie (MS)		xx.04.1911		adult	Charadriiformes
Larus ridibundus	Zau de Câmpie (MS)		xx.04.1911		immatur	Charadriiformes
Larus ridibundus					juvenile	Charadriiformes
Larus ridibundus					adult	Charadriiformes
Leiopicus medius	Aghireş (CJ)	Führer Lajos	xx.09.1909	M		Piciformes
Leiopicus medius	Feleacu (CJ)	Führer Lajos	xx.05.1911	M		Piciformes
Leiopicus medius	Feleacu (CJ)	Führer Lajos	xx.05.1911	F		Piciformes
Leiopicus medius	Feleacu (CJ)	Führer Lajos	xx.05.1911	M		Piciformes
Leiopicus medius	Feleacu (CJ)	Führer Lajos	xx.05.1911	M		Piciformes
Leiopicus medius	Feleacu (CJ)	Führer Lajos	xx.05.1911	M		Piciformes
Leiopicus medius	Feleacu (CJ)	Führer Lajos	xx.05.1911	M		Piciformes
Leiopicus medius	Micești (CJ)	Führer Lajos	xx.11.1909	F		Piciformes
Leiopicus medius	Micești (CJ)	Führer Lajos	xx.11.1909	M		Piciformes
Leiopicus medius	Micești (CJ)	Führer Lajos	xx.11.1909	M		Piciformes
Leiopicus medius	Unguraș (CJ)	Führer Lajos	xx.09.1909	F		Piciformes
Leiopicus medius	<del>-</del> , -	Führer Lajos	xx.09.1909	F		Piciformes
Lichenostomus fuscus	Victoria (AU)	Gasilemaine	xx.07.1897			Passeriformes
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Species	Location	Name of collector	Data	Sex	Age	Order
Limosa limosa	Someșeni (CJ)	Vincze Ferencz	26.07.1973	М	juvenile	Charadriiformes
Limosa limosa	Ungaria (HU)		xx.04.1911	M	adult	Charadriiformes
Linaria cannabina	Cuzăplac (SJ)	Kómis Lajos	xx.07.1913	F		Passeriformes
Linaria cannabina	Cuzăplac (SJ)	Kómis Lajos	23.10.1913	M		Passeriformes
Linaria cannabina				M		Passeriformes
Linaria cannabina				M		Passeriformes
Locustella luscionides	Apahida (CJ)	Führer Lajos	xx.05.1911			Passeriformes
Locustella luscionides	Apahida (CJ)	Führer Lajos	xx.05.1911	M		Passeriformes
Locustella luscionides	Apahida (CJ)	Führer Lajos	xx.05.1911	M		Passeriformes
Locustella luscionides	Apahida (CJ)	Führer Lajos	xx.05.1911	M		Passeriformes
Locustella luscionides	Apahida (CJ)	Führer Lajos	xx.05.1911	M		Passeriformes
Locustella luscionides	Apahida (CJ)	Führer Lajos	xx.05.1911			Passeriformes
Locustella luscionides						Passeriformes
Locustella luscionides						Passeriformes
Locustella luscionides						Passeriformes
Locustella luscionides			xx.xx.1911			Passeriformes
Locustella luscionides			xx.xx.1911			Passeriformes
Loxia curvirostra	Cluj-Napoca (CJ)	Vincze Ferencz	13.10.1970	M	adult	Passeriformes
Loxia curvirostra	Cluj-Napoca (CJ)	Vincze Ferencz	13.10.1970	F	adult	Passeriformes
Loxia curvirostra	Cluj-Napoca (CJ)	Fülöp Herman	11.12.1959	F	adult	Passeriformes
Lullula arborea	Feleacu (CJ)	Führer Lajos	xx.05.1911	M	adult	Passeriformes
Lullula arborea	Feleacu (CJ)	Führer Lajos	xx.05.1911	F	adult	Passeriformes
Lullula arborea	Feleacu (CJ)	Führer Lajos	xx.05.1911	M	adult	Passeriformes
Lullula arborea	Plesca (SJ)	Neuwirth János	15.03.1903	F	adult	Passeriformes
Lullula arborea	(- <b>y</b> /	,			adult	Passeriformes
Lullula arborea					adult	Passeriformes
Luscinia luscinia	Aghireş (CJ)	Führer Lajos	xx.09.1909	F		Passeriformes
Luscinia luscinia	Aghireş (CJ)	Führer Lajos	xx.05.1911	M	adult	Passeriformes
Luscinia luscinia	Cluj-Napoca (CJ)	Führer Lajos	xx.05.1911	F		Passeriformes
Luscinia luscinia	Cluj-Napoca (CJ)	Führer Lajos	xx.05.1911	F		Passeriformes
Luscinia luscinia	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Luscinia luscinia	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Luscinia luscinia	Făget (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Luscinia luscinia	Făget (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Luscinia luscinia	Fäget (CJ)	Führer Lajos	xx.09.1909	F		Passeriformes
Luscinia luscinia	Fäget (CJ)	Führer Lajos	xx.10.1909	F		Passeriformes
Luscinia luscinia	Răscruci (CJ)	Führer Lajos	xx.10.1909	F		Passeriformes
Luscinia megarhynchos	Aghireş (CJ)	Führer Lajos	xx.05.1911	F		Passeriformes
Luscinia megarhynchos	Cluj-Napoca (CJ)	Führer Lajos	xx.05.1911	M		Passeriformes
Luscinia megarhynchos	Cluj-Napoca (CJ)	Führer Lajos	xx.05.1911	M		Passeriformes
Luscinia megarhynchos	Cluj-Napoca (CJ)	Führer Lajos	xx.08.1912	M		Passeriformes
Lymnocryptes minimus	Aghireş (CJ)	Führer Lajos	xx.09.1909	F		Charadriiformes
	Aghireş (CJ)	Führer Lajos	xx.09.1909	M		Charadriiformes
Lymnocryptes minimus	· / ·	,		M		Charadriiformes
Lymnocryptes minimus	Răscruci (CJ)	Führer Lajos	xx.11.1909	IVI		Charadriiformes  Charadriiformes
Lymnocryptes minimus	D (CI)	Enforce Lates	11 1000	T.		Charadriiformes
Lymnocryptes minimus	Răscruci (CJ)	Führer Lajos	xx.11.1909	F		Charadriiformes Charadriiformes
Lymnocryptes minimus	Răscruci (CJ)	Führer Lajos	xx.11.1909	F		Charadriiformes Charadriiformes
Lymnocryptes minimus	Răscruci (CJ)	Führer Lajos	xx.11.1909	M		
Mareca strepera	Apahida (CJ)	Führer Lajos	xx.04.1911	F		Anseriformes
Mareca strepera	Apahida (CJ)	Führer Lajos	xx.11.1909	M	1.1	Anseriformes
Melopsittacus undulatus	of the con-	F7 " 0: 1		M	adult	Psittaciformes
Mergus merganser	Cluj-Napoca (CJ)	Zwörner Sándor	15.10.1903	F	adult	Anseriformes
Merops apiaster	București (B)	Vincze Ferencz	12.05.1969	M	adult	Coraciiformes
Merops apiaster	Canaraua Fetei (CT)	Vincze Ferencz	12.05.1969			Coraciiformes
Merops apiaster		Führer Lajos	xx.05.1911	M		Coraciiformes
Merops apiaster		Führer Lajos	xx.05.1911	M		Coraciiformes
Milvus migrans	Apahida (CJ)		xx.11.1911	M	juvenile	Accipitriformes

Species	Location	Name of collector	Data	Sex	Age	Order
Milvus migrans			<u> </u>		juvenile	Accipitriformes
Monticola saxatilis						Passeriformes
Morus bassanus	Norvegia	Lehne W.	xx.xx.1969		adult	Suliformes
Morus bassanus					juvenile	Suliformes
Motacilla alba	Apahida (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Motacilla alba	Apahida (CJ)	Führer Lajos	xx.10.1909	F		Passeriformes
Motacilla alba	Apahida (CJ)	Führer Lajos	xx.09.1909	M		Passeriformes
Motacilla alba	Apahida (CJ)	Führer Lajos	xx.11.1909	F		Passeriformes
Motacilla alba	Cluj-Napoca (CJ)	Zwörner Sándor	02.04.1904	F		Passeriformes
Motacilla alba	Cluj-Napoca (CJ)	Führer Lajos	28.09.1912	M	juvenile	Passeriformes
Motacilla alba	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912	M	juvenile	Passeriformes
Motacilla alba	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912	M	juvenile	Passeriformes
Motacilla alba	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912	M	juvenile	Passeriformes
Motacilla alba	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912		juvenile	Passeriformes
Motacilla alba	Cluj-Napoca (CJ)	Führer Lajos	xx.03.1910	M		Passeriformes
Motacilla alba	Cluj-Napoca (CJ)	Führer Lajos	xx.01.1909	F		Passeriformes
Motacilla alba	Florești (CJ)	Führer Lajos	xx.04.1913	M		Passeriformes
Motacilla alba						Passeriformes
Motacilla alba				M		Passeriformes
Motacilla alba				M		Passeriformes
Motacilla cinerea	Colibița (BN)	Vincze Ferencz	07.05.1971	F		Passeriformes
Motacilla cinerea	,			M		Passeriformes
Motacilla cinerea				F		Passeriformes
Motacilla cinerea				M		Passeriformes
Motacilla cinerea				F		Passeriformes
Muscicapa striata	Cluj-Napoca (CJ)	Führer Lajos	10.10.1912	M	juvenile	Passeriformes
Muscicapa striata	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912	F	juvenile	Passeriformes
Muscicapa striata	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1909	M	juvenile	Passeriformes
Muscicapa striata	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912	M	adult	Passeriformes
Muscicapa striata	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912	M	juvenile	Passeriformes
Muscicapa striata	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912	M	juvenile	Passeriformes
Muscicapa striata	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912	F	juvenile	Passeriformes
Muscicapa striata	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912	F	juvenile	Passeriformes
Muscicapa striata	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912		juvenile	Passeriformes
Muscicapa striata	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912	F	juvenile	Passeriformes
Myiarchus cinerascens	California (USA)	Xantus János	xx.xx.1859	F	adult	Passeriformes
Nucifraga caryocatactes	Măguri-Răcătău (CJ)	Vincze Ferencz	03.08.1970	M	aduit	Passeriformes
Nucifraga caryocatactes	Maguii-Nacatau (CJ)	VIIICZE PETEIICZ	03.08.17/0	171		Passeriformes
Nucifraga caryocatactes Nucifraga caryocatactes						Passeriformes
Nycticorax nycticorax	Cefa (BH)	Vincze Ferencz	19.12.1970	M	adult	Pelecaniformes
	Cefa (BH)	Vincze Ferencz	25.06.1970			Pelecaniformes
Nycticorax nycticorax		Vincze Ferencz Vincze Ferencz		F F	juvenile	Pelecaniformes
Nycticorax nycticorax	Cefa (BH)		25.06.1970		juvenile	
Nycticorax nycticorax	Cefa (BH)	Vincze Ferencz	25.06.1970	M	juvenile	Pelecaniformes
Nycticorax nycticorax	Cefa (BH)	Vincze Ferencz	25.06.1970	M	juvenile	Pelecaniformes
Nycticorax nycticorax	Gilău (CJ)	Führer Lajos	xx.09.1909	M	adult	Pelecaniformes
Nycticorax nycticorax	Mociu (CJ)	Führer Lajos	xx.05.1910	M	adult	Pelecaniformes
Nycticorax nycticorax	Dej (CJ)	Führer Lajos	24.06.1903	M	adult	Pelecaniformes
Nycticorax nycticorax	Dej (CJ)	Führer Lajos	17.06.1903	M	adult	Pelecaniformes
Nycticorax nycticorax	Răscruci (CJ)	Führer Lajos	xx.10.1909		juvenile	Pelecaniformes
Nycticorax nycticorax	Răscruci (CJ)	Führer Lajos	xx.10.1909		juvenile	Pelecaniformes
Nycticorax nycticorax	Răscruci (CJ)	Führer Lajos	xx.10.1909		juvenile	Pelecaniformes
Nycticorax nycticorax	Răscruci (CJ)	Führer Lajos	xx.10.1909		juvenile	Pelecaniformes
Oenanthe oenanthe	Baciu (CJ)	Vincze Ferencz	25.07.1910	F	juvenile	Passeriformes
Oenanthe oenanthe	Gilău (CJ)	Führer Lajos	xx.04.1911	M	adult	Passeriformes
Oenanthe oenanthe	Gilău (CJ)	Führer Lajos	xx.04.1911	M	adult	Passeriformes
Oenanthe oenanthe	Gilău (CJ)	Führer Lajos	xx.05.1911	M	adult	Passeriformes
Oenanthe oenanthe	Gilău (CJ)	Führer Lajos	xx.05.1911	M	adult	Passeriformes

Species	Location	Name of collector	Data	Sex	Age	Order
Oenanthe oenanthe	Păniceni (CJ)	Führer Lajos	xx.04.1911	M	adult	Passeriformes
Oenanthe oenanthe	Păniceni (CJ)	Führer Lajos	xx.04.1911	M	adult	Passeriformes
Oenanthe oenanthe	Păniceni (CJ)	Führer Lajos	xx.04.1911	M	adult	Passeriformes
Oenanthe oenanthe	Păniceni (CJ)	Führer Lajos	xx.04.1911	F	adult	Passeriformes
Oenanthe oenanthe	Viţa (CJ)	Führer Lajos	xx.09.1912	F	adult	Passeriformes
Oriolus oriolus	București (B)	Vincze Ferencz	12.05.1969	F	adult	Passeriformes
Oriolus oriolus	Brăncovenești (MS)	Vincze Ferencz	12.05.1971	M	adult	Passeriformes
Oriolus oriolus	Lita (CJ)	Vincze Ferencz	16.05.1983	M	adult	Passeriformes
Otus scops					adult	Strigiformes
Otus scops					adult	Strigiformes
Otus scops					adult	Strigiformes
Parus major	Cluj-Napoca (CJ)	Führer Lajos	30.10.1902	F		Passeriformes
Parus major	Cluj-Napoca (CJ)	Ajtai K. Gyula	20.01.1910	M		Passeriformes
Parus major	Cluj-Napoca (CJ)	Ajtai K. Gyula	20.01.1910	M		Passeriformes
Parus major	Cluj-Napoca (CJ)	Führer Lajos	xx.12.1909	M		Passeriformes
Parus major	Cluj-Napoca (CJ)	Führer Lajos	xx.11.1909	M		Passeriformes
Parus major	Cluj-Napoca (CJ)	Führer Lajos	xx.11.1909	M		Passeriformes
Parus major		,				Passeriformes
Parus major				F		Passeriformes
Parus major				F		Passeriformes
Passer domesticus	Sucutard (CJ)	Fülöp Herman	31.01.1960	F	adult	Passeriformes
Passer domesticus	Sucutard (CJ)	Fülöp Herman	31.01.1960	F	adult	Passeriformes
Passer domesticus	Sucutard (CJ)	Fülöp Herman	31.01.1960	M	adult	Passeriformes
Perdix perdix	Baciu (CJ)	Vincze Ferencz	12.05.1970	F		Galliformes
Periparus ater	Albac (AB)		xx.03.1913	M		Passeriformes
Periparus ater	Albac (AB)		xx.03.1913	M		Passeriformes
Periparus ater	Albac (AB)		xx.03.1913	F		Passeriformes
Periparus ater	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1909	M		Passeriformes
Periparus ater	Cluj-Napoca (CJ)	Führer Lajos	xx.12.1909	F		Passeriformes
Periparus ater	Cluj-Napoca (CJ)	Führer Lajos	xx.12.1909	F		Passeriformes
Periparus ater	Cluj-Napoca (CJ)	Führer Lajos	xx.12.1909	M		Passeriformes
Periparus ater	Cluj-Napoca (CJ)	Führer Lajos	xx.12.1909	M		Passeriformes
Periparus ater	Cluj-Napoca (CJ)	Führer Lajos	xx.12.1909	M		Passeriformes
Periparus ater	Cluj-Napoca (CJ)	Führer Lajos	xx.11.1909	M		Passeriformes
Periparus ater	Ciu) i tapoca (Cj)	rumer Lajos	XX.11.1707	141		Passeriformes
Periparus ater						Passeriformes
Periparus ater						Passeriformes
Periparus ater						Passeriformes
Pernis apivorus				M	adult	Accipitriformes
Phoenicurus ochruros	Feleacu (CJ)	Führer Lajos	xx.04.1911	M	adult	Passeriformes
Phoenicurus ochruros	Feleacu (CJ)	Führer Lajos	xx.04.1911	M	adult	Passeriformes
Phoenicurus ochruros  Phoenicurus ochruros	-	,	xx.04.1911 xx.04.1911	M	adult	Passeriformes
	Feleacu (CJ)	Führer Lajos Vincze Ferencz				Passeriformes
Phoenicurus phoenicurus	Cluj-Napoca (CJ)		26.05.1965	M	adult	
Phoenicurus phoenicurus	Cuzăplac (SJ)	Kómis Lajos	02.12.1903	F		Passeriformes
Phoenicurus phoenicurus	Feleacu (CJ)	Führer Lajos	xx.04.1911	M		Passeriformes
Phoenicurus phoenicurus	Feleacu (CJ)	Führer Lajos	xx.04.1911	M	1	Passeriformes
Phoenicurus phoenicurus	Gilău (CJ)	Führer Lajos	xx.10.1909	M	juvenile	Passeriformes
Phoenicurus phoenicurus				M		Passeriformes
Phoenicurus phoenicurus						Passeriformes
Phoenicurus phoenicurus				1.7		Passeriformes
Phoenicurus phoenicurus				M		Passeriformes
Phylloscopus collybita						Passeriformes
Phylloscopus collybita	Florești (CJ)	Führer Lajos	xx.04.1913	M	adult	Passeriformes
Phylloscopus collybita	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Phylloscopus collybita	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Phylloscopus collybita	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1909	F		Passeriformes
Phylloscopus collybita	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912		juvenile	Passeriformes

Species	Location	Name of collector	Data	Sex	Age	Order
Phylloscopus collybita	Feleac (CJ)	Führer Lajos	xx.05.1911	F		Passeriformes
Phylloscopus collybita	Feleac (CJ)	Führer Lajos	xx.05.1911	F		Passeriformes
Phylloscopus collybita	Gilău (CJ)	Führer Lajos	xx.09.1909	M		Passeriformes
Phylloscopus collybita	Gilău (CJ)	Führer Lajos	xx.09.1909	F		Passeriformes
Phylloscopus collybita		•				Passeriformes
Phylloscopus collybita						Passeriformes
Phylloscopus collybita						Passeriformes
Phylloscopus collybita						Passeriformes
Phylloscopus collybita						Passeriformes
Phylloscopus collybita						Passeriformes
Phylloscopus collybita						Passeriformes
Phylloscopus collybita						Passeriformes
Pica pica	Cluj-Napoca (CJ)	Führer Lajos	xx.03.1912	M		Passeriformes
Pica pica	Cluj-Napoca (CJ)	Zwörner Sándor	14.02.1904	M		Passeriformes
Pica pica	, 1 (3)					Passeriformes
Picus canus	Ciurila (CJ)	Führer Lajos	xx.11.1909	M	adult	Piciformes
Picus canus	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1912	F		Piciformes
Picus canus	Cluj-Napoca (CJ)	Führer Lajos	xx.11.1909	F	adult	Piciformes
Picus canus	Cuzăplac (SJ)	Kómis Lajos	03.12.1913	F	adult	Piciformes
Picus canus	Gusup ine (e))	24,00	0011211710	M	adult	Piciformes
Picus viridis				F	adult	Piciformes
Picus viridis				F	adult	Piciformes
Platalea leucorodia	Delta Dun?rii	Fülöp Herman	15.04.1950	•	adult	Pelecaniformes
Platalea leucorodia	Dobrogea	Führer Lajos	xx.xx.1911	M	adult	Pelecaniformes
Platalea leucorodia	Dobrogea	Führer Lajos	xx.xx.1911	F	adult	Pelecaniformes
Platalea leucorodia	Dobrogea	Führer Lajos	xx.xx.1911	M	adult	Pelecaniformes
Platalea leucorodia	Dobrogea	Führer Lajos	xx.xx.1911	M	adult	Pelecaniformes
Platalea leucorodia	Dobrogea	Führer Lajos	xx.xx.1911	F	adult	Pelecaniformes
Platalea leucorodia	Mociu (CJ)	Führer Lajos	xx.07.1910	M	adult	Pelecaniformes
Podiceps cristatus	Cefa (BH)	Vincze Ferencz	26.06.1970	M	auun	Podicipediformes
Podiceps cristatus	Cefa (BH)	Vincze Ferencz	26.06.1970	M	adult	Podicipediformes
Podiceps cristatus	Cefa (BH)	Vincze Ferencz	26.06.1970	M	adult	Podicipediformes
Podiceps cristatus	Cefa (BH)	Vincze Ferencz	26.06.1970	M	adult	Podicipediformes
-		Zwörner Sándor	xx.10.1962	F	adult	Podicipediformes
Podiceps cristatus	Cluj-Napoca (CJ)	Zworner Sandor	xx.10.1962	Г	aduit	*
Podiceps cristatus	C (CI)	V. E	02.06.1070	1.4	1.1.	Podicipediformes
Podiceps grisegena	Geaca (CJ)	Vincze Ferencz	03.06.1970	M	adult	Podicipediformes
Podiceps nigricollis	Apahida (CJ)	Führer Lajos	xx.10.1909	F		Podicipediformes
Podiceps nigricollis	Dej (CJ)	Varró Dezső	07.08.1944	M	1.1.	Podicipediformes
Poecile lugubris	Cuzăplac (SJ)	Kómis Lajos	04.01.1914	M	adult	Passeriformes
Poecile lugubris	Gilău (CJ)	Führer Lajos	xx.06.1911	M	1.1	Passeriformes
Poecile lugubris	Gilău (CJ)	Führer Lajos	xx.06.1911	F	adult	Passeriformes
Poecile lugubris	Gilău (CJ)	Führer Lajos	xx.05.1911	F	adult	Passeriformes
Poecile lugubris	C1	enut e a		-	adult	Passeriformes
Poecile palustris	Cluj-Napoca (CJ)	Führer Lajos	xx.12.1909	F		Passeriformes
Poecile palustris	Cluj-Napoca (CJ)	Führer Lajos	xx.12.1909	M		Passeriformes
Poecile palustris	Cluj-Napoca (CJ)	Führer Lajos	xx.12.1909	M		Passeriformes
Poecile palustris	Cluj-Napoca (CJ)	Führer Lajos	15.10.1912	M		Passeriformes
Poecile palustris	Cluj-Napoca (CJ)	Führer Lajos	15.10.1912	M		Passeriformes
Poecile palustris	Cuzăplac (SJ)	Kómis Lajos	16.10.1913	F		Passeriformes
Poecile palustris	Micești (CJ)	Führer Lajos	xx.11.1909	M		Passeriformes
Poecile palustris	Micești (CJ)	Führer Lajos	xx.02.1910	F		Passeriformes
Poecile palustris	Micești (CJ)	Führer Lajos	xx.02.1910	M		Passeriformes
Poecile palustris						Passeriformes
Poecile palustris						Passeriformes
Poecile palustris						Passeriformes
Poecile palustris						Passeriformes
Pomatostomus superciliosus	Victoria (AU)	Gasilemaine	xx.09.1897			Passeriformes

Species	Location	Name of collector	Data	Sex	Age	Order
Porzana porzana	Apahida (CJ)	Führer Lajos	xx.10.1909	F	juvenile	Gruiformes
Porzana porzana	Apahida (CJ)	Führer Lajos	xx.10.1909	M	juvenile	Gruiformes
Porzana porzana	Apahida (CJ)	Zwörner Sándor	06.10.1903	M	juvenile	Gruiformes
Porzana porzana	Florești (CJ)	Führer Lajos	xx.05.1911	M	adult	Gruiformes
Porzana porzana	Mociu (CJ)	Führer Lajos	xx.11.1909	F	juvenile	Gruiformes
Porzana porzana	Mociu (CJ)	Führer Lajos	xx.11.1909	M	juvenile	Gruiformes
Porzana porzana	Mociu (CJ)	Führer Lajos	xx.11.1909	M	adult	Gruiformes
Prunella collaris			xx.xx.1911			Passeriformes
Prunella collaris			xx.xx.1911			Passeriformes
Prunella collaris			xx.xx.1911			Passeriformes
Prunella collaris			xx.xx.1911			Passeriformes
Prunella collaris						Passeriformes
Prunella modularis	Cuzăplac (SJ)	Kómis Lajos	16.10.1913	M	adult	Passeriformes
Prunella modularis	Feleacu (CJ)	Führer Lajos	xx.05.1911	M	adult	Passeriformes
Prunella modularis	Feleacu (CJ)	Führer Lajos	xx.05.1911	M	adult	Passeriformes
Prunella modularis		,				Passeriformes
Prunella modularis						Passeriformes
Prunella modularis						Passeriformes
Prunella modularis						Passeriformes
Pycnonotus cafer	Sindanglaya	Xántus János	30.06.1870			Passeriformes
Pyrrhula phyrrhula	Cluj-Napoca (CJ)	Fülöp Herman	14.03.1954	F	adult	Passeriformes
Pyrrhula phyrrhula	Cluj-Napoca (CJ)	r	14.03.1954	M	adult	Passeriformes
Pyrrhula phyrrhula	Cluj-Napoca (CJ)		14.03.1955	M	adult	Passeriformes
Pyrrhula phyrrhula	Cluj-Napoca (CJ)	Fülöp Herman	23.02.1960	M	adult	Passeriformes
Pyrrhula phyrrhula	Staj Tapota (Sj)	T GIOP T TOTTIGET	23.02.1700	M	adult	Passeriformes
Pyrrhula phyrrhula				M	uduit	Passeriformes
Recurvirostra avosetta	Someşeni (CJ)	Führer Lajos	xx.09.1912	141	juvenile	Charadriiformes
Regulus ignicapillus	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1909	F	javeime	Passeriformes
Regulus ignicapillus	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1909	F		Passeriformes
Regulus ignicapillus	Feleacu (CJ)	Führer Lajos	xx.04.1911	M		Passeriformes
Regulus ignicapillus	Feleacu (CJ)	Führer Lajos	xx.05.1911	M		Passeriformes
Regulus regulus	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Regulus regulus Regulus regulus	Cluj-Napoca (CJ)	Führer Lajos	xx.04.1911	M		Passeriformes
Regulus regulus Regulus regulus	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Regulus regulus Regulus regulus	Cluj-Napoca (CJ)	Ajtai K. Gyula	20.01.1910	M		Passeriformes
Regulus regulus Regulus regulus	Cluj-Napoca (CJ) Cluj-Napoca (CJ)	Führer Lajos	xx.12.1909	F		Passeriformes
0 0	, •	,		M		Passeriformes
Regulus regulus	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1909	F		Passeriformes
Regulus regulus	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1909 xx.09.1909			Passeriformes
Regulus regulus	Cluj-Napoca (CJ)	Führer Lajos		M		Passeriformes
Regulus regulus	Feleacu (CJ)	Führer Lajos	xx.04.1911	M		Passeriformes
Regulus regulus	Feleacu (CJ)	Führer Lajos	xx.04.1911	M		Passeriformes Passeriformes
Regulus regulus	Feleacu (CJ)	Führer Lajos	xx.05.1911	M		
Regulus regulus	Feleacu (CJ)	Führer Lajos	xx.05.1911	M		Passeriformes
Regulus regulus	Feleacu (CJ)	Führer Lajos	xx.05.1911	M		Passeriformes
Regulus regulus	Feleacu (CJ)	Führer Lajos	xx.04.1911	M		Passeriformes
Regulus regulus	Feleacu (CJ)	Führer Lajos	xx.05.1911	M		Passeriformes
Regulus regulus	Feleacu (CJ)	Führer Lajos	xx.04.1911	M		Passeriformes
Regulus regulus	Feleacu (CJ)	Führer Lajos	xx.04.1911	M		Passeriformes
Regulus regulus	Feleacu (CJ)	Führer Lajos	xx.xx.1911	M		Passeriformes
Regulus regulus	Gilău (CJ)	Führer Lajos	xx.09.1909	F		Passeriformes
Regulus regulus	Micești (CJ)	Führer Lajos	xx.11.1909	F		Passeriformes
Regulus regulus	Micești (CJ)	Führer Lajos	xx.11.1909	M		Passeriformes
Regulus regulus						Passeriformes
Regulus regulus						Passeriformes
Regulus regulus						Passeriformes
Regulus regulus						Passeriformes
Regulus regulus						Passeriformes

Species	Location	Name of collector	Data	Sex	Age	Order
Regulus regulus						Passeriformes
Regulus regulus						Passeriformes
Regulus regulus						Passeriformes
Remiz pendulinus	Ungaria (HU)	Führer Lajos	xx.06.1911	F		Passeriformes
Remiz pendulinus	Ungaria (HU)	Führer Lajos	xx.06.1911	F		Passeriformes
Remiz pendulinus	Ungaria (HU)	Führer Lajos	xx.06.1911	F		Passeriformes
Remiz pendulinus	Ungaria (HU)	Führer Lajos	xx.06.1911	F		Passeriformes
Remiz pendulinus	Ungaria (HU)	Führer Lajos	xx.06.1911	M		Passeriformes
Remiz pendulinus	Ungaria (HU)	Führer Lajos	xx.06.1911	M		Passeriformes
Remiz pendulinus	Ungaria (HU)	Führer Lajos	xx.06.1911	M		Passeriformes
Remiz pendulinus	Ungaria (HU)	Führer Lajos	xx.06.1911	M		Passeriformes
Saxicola rubetra	Apahida (CJ)	Führer Lajos	xx.09.1909	M	adult	Passeriformes
Saxicola rubetra	Baciu (CJ)	Führer Lajos	26.05.1910	F	adult	Passeriformes
Saxicola rubetra	Florești (CJ)	Führer Lajos	xx.04.1913			Passeriformes
Saxicola rubicola	Apahida (CJ)	Führer Lajos	xx.09.1909	M	adult	Passeriformes
Saxicola rubicola	Cluj-Napoca (CJ)	Vincze Ferencz	18.03.1965	M	adult	Passeriformes
Saxicola rubicola	Cluj-Napoca (CJ)	Neuwirth János	14.03.1903	M	adult	Passeriformes
Saxicola rubicola	Cuzăplac (SJ)	Kómis Lajos	11.07.1913	F	juvenile	Passeriformes
Saxicola rubicola	Cuzăplac (SJ)	Kómis Lajos	11.07.1913	M	adult	Passeriformes
Saxicola rubicola	Fânațele Clujului (CJ)	Neuwirth János	xx.04.1903	F	adult	Passeriformes
Scolopax rusticola	Feleacu (CJ)	Führer Lajos	xx.xx.1911			Charadriiformes
Sitta europaea	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1912	M		Passeriformes
Sitta europaea	Cluj-Napoca (CJ)	Führer Lajos	xx.04.1911	M	adult	Passeriformes
Sitta europaea	Feleac (CJ)	Führer Lajos	xx.05.1911	M	adult	Passeriformes
Sitta europaea	Feleac (CJ)	Führer Lajos	xx.05.1911	M	adult	Passeriformes
Spatula querquedula	Geaca (CJ)	Fülöp Herman	29.03.1957	M	adult	Anseriformes
Spatula querquedula	Geaca (CJ)	Fülöp Herman	29.03.1957	f	adult	Anseriformes
Spatula querquedula	Apahida (CJ)	Führer Lajos	xx.04.1911	1	addit	Anseriformes
Spatula querquedula	Someşeni (CJ)	Vincze Ferencz	26.07.1973	F		Anseriformes
Spinus spinus	Florești (CJ)	Ráthonyi Károly	16.12.1943	M		Passeriformes
Sterna hirundo	Apahida (CJ)	Führer Lajos	xx.09.1909	F	adult	Charadriiformes
Sterna hirundo	Apahida (CJ)	Führer Lajos	xx.09.1909	M	adult	Charadriiformes
Sternula albifrons	ripanida (Oj)	r differ Lajos	AA.07.1707	141	adult	Charadriiformes
Streptopelia turtur	Cluj-Napoca (CJ)	Führer Lajos	xx.08.1912		adult	Columbiformes
Streptopelia turtur Streptopelia turtur	Gilău (CJ)	Führer Lajos	xx.09.1912	M	adult	Columbiformes
Streptopelia turtur Streptopelia turtur	Gliau (CJ)	rumer Lajos	xx.09.1909	IVI	adult	Columbiformes
Streptopelia turtur Streptopelia turtur					adult	Columbiformes
					adult adult	Columbiformes
Streptopelia turtur					adult	Columbiformes
Streptopelia turtur						Columbiformes
Streptopelia turtur	I:1 (CI)	7 "	20.07.1002	E	adult	
Strix uralensis	Jibou (SJ)	Zwörner Sándor	20.04.1903	F		Strigiformes
Strix uralensis	(C. 1919) (DAD)	17. I	06.05.1071	1.7	1.1.	Strigiformes
Sturnus vulgaris	Colibița (BN)	Vincze Ferencz	06.05.1971	M	adult	Passeriformes
Sturnus vulgaris		F101 - T - 1	00.1010			Passeriformes
Sylvia atricapilla	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912	M		Passeriformes
Sylvia atricapilla	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912	M		Passeriformes
Sylvia atricapilla	Cluj-Napoca (CJ)	Führer Lajos	xx.09.1912	M	juvenile	Passeriformes
Sylvia atricapilla	Făget (CJ)	Führer Lajos	xx.09.1909	F	juvenile	Passeriformes
Sylvia atricapilla	Feleacu (CJ)	Führer Lajos	xx.05.1911	M		Passeriformes
Sylvia atricapilla	Gilău (CJ)	Führer Lajos	xx.05.1911	M	adult	Passeriformes
Sylvia atricapilla	Gilău (CJ)	Führer Lajos	xx.05.1911	M	adult	Passeriformes
Sylvia atricapilla	Gilău (CJ)	Führer Lajos	xx.05.1911	M	adult	Passeriformes
Sylvia atricapilla	Gilău (CJ)	Führer Lajos	xx.10.1909	M	juvenile	Passeriformes
Sylvia atricapilla				M	adult	Passeriformes
Sylvia atricapilla				F		Passeriformes
Sylvia communis						Passeriformes

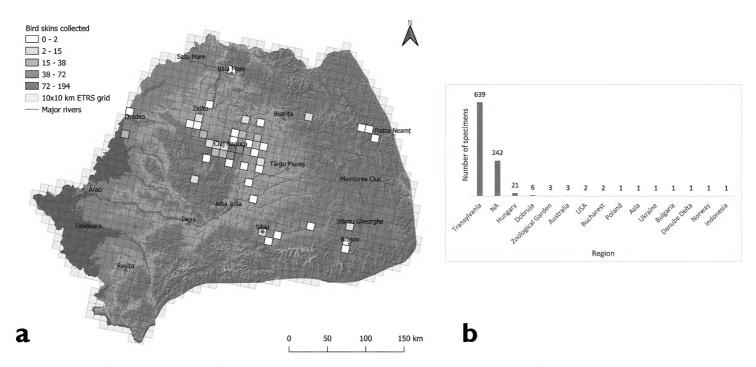
Species	Location	Name of collector	Data	Sex	Age	Order
Sylvia communis	Cluj-Napoca (CJ)	Führer Lajos	xx.06.1910	F		Passeriformes
Sylvia communis	Florești (CJ)	Führer Lajos	xx.04.1913	M		Passeriformes
Sylvia communis	Gilău (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Sylvia communis						Passeriformes
Sylvia communis						Passeriformes
Sylvia communis						Passeriformes
Sylvia communis						Passeriformes
Sylvia curruca	Aghireş (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Sylvia curruca	Cluj-Napoca (CJ)	Führer Lajos	xx.06.1911			Passeriformes
Sylvia curruca						Passeriformes
Sylvia nisoria	Gilău (CJ)	Führer Lajos	xx.05.1911	M		Passeriformes
Sylvia nisoria	Gilău (CJ)	Führer Lajos	xx.05.1911	F		Passeriformes
Tachybaptus ruficollis	Geaca (CJ)	Vincze Ferencz	15.10.1970	M		Podicipediformes
Tachybaptus ruficollis	Geaca (CJ)	Vincze Ferencz	30.08.1971	F		Podicipediformes
Tachybaptus ruficollis	Hăghig (CV)		28.12.1902	F		Podicipediformes
Tachybaptus ruficollis	Mociu (CJ)	Führer Lajos	xx.10.1909	F		Podicipediformes
Tachybaptus ruficollis	Mociu (CJ)	Führer Lajos	xx.11.1909	F		Podicipediformes
Tachybaptus ruficollis	Mociu (CJ)	Führer Lajos	xx.11.1909	M		Podicipediformes
Tringa erythropus	Mociu (CJ)	Führer Lajos	xx.10.1909	M	adult	Charadriiformes
Tringa erythropus	Mociu (CJ)	Führer Lajos	xx.10.1909	M	adult	Charadriiformes
Tringa erythropus	Mociu (CJ)	Führer Lajos	xx.10.1909	F	adult	Charadriiformes
Tringa eryimopus Tringa glareola	Gilău (CJ)	Führer Lajos	xx.05.1911	M	adult	Charadriiformes
Tringa giareola Tringa glareola	Someşeni (CJ)	Vincze Ferencz	24.07.1973	M	juvenile	Charadriiformes
Tringa glareola Tringa glareola	Someşem (C))	VIIICZE TETETICZ	24.07.17/3	IVI	adult	Charadriiformes
Tringa gaireoaa Tringa nebularia	Mociu (CJ)	Führer Lajos	xx.11.1909	M	aduit	Charadriiformes
Iringa nebularia Tringa nebularia		Führer Lajos Führer Lajos	xx.11.1909 xx.10.1909	M		Charadriiformes
e e	Mociu (CJ)	,	xx.10.1909 xx.10.1909			Charadriiformes
Tringa nebularia	Mociu (CJ)	Führer Lajos		M M		Charadriiformes
Tringa nebularia	Mociu (CJ)	Führer Lajos	xx.10.1909			Charadriiformes
Tringa nebularia	Mociu (CJ)	Führer Lajos	xx.10.1909	M		
Tringa nebularia	Mociu (CJ)	Führer Lajos	xx.11.1909	F		Charadriiformes
Tringa nebularia	Cl · N (CI)	Put I ·	10 1000	1.7		Charadriiformes
Tringa ochropus	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1909	M		Charadriiformes
Tringa ochropus	Ţaga (CJ)	Ajtai K. Gyula	04.05.1910	M		Charadriiformes
Tringa ochropus						Charadriiformes
Tringa ochropus						Charadriiformes
Tringa ochropus					adult	Charadriiformes
Tringa ochropus						Charadriiformes
Tringa totanus	Mociu (CJ)	Führer Lajos	xx.11.1909	F	juvenile	Charadriiformes
Troglodytes troglodytes	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Troglodytes troglodytes	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Troglodytes troglodytes	Cluj-Napoca (CJ)	Führer Lajos	xx.12.1912	M		Passeriformes
Troglodytes troglodytes	Cluj-Napoca (CJ)	Führer Lajos	10.10.1912	M		Passeriformes
Troglodytes troglodytes	Cluj-Napoca (CJ)	Führer Lajos	xx.12.1912	M		Passeriformes
Troglodytes troglodytes	Cluj-Napoca (CJ)	Führer Lajos	xx.11.1909	M		Passeriformes
Troglodytes troglodytes	Cuzăplac (SJ)	Kómis Lajos	03.11.1913	M	adult	Passeriformes
Troglodytes troglodytes	Cuzăplac (SJ)	Kómis Lajos	20.12.1913	F		Passeriformes
Troglodytes troglodytes	Florești (CJ)	Führer Lajos	xx.01.1913	M		Passeriformes
Troglodytes troglodytes						Passeriformes
Troglodytes troglodytes						Passeriformes
Turdus iliacus	Făget (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Turdus merula	Cuzăplac (SJ)	Kómis Lajos	14.10.1913	M	juvenile	Passeriformes
Turdus merula	Viștea (CJ)	Ajtai K. Gyula	17.03.1910	M	adult	Passeriformes
Turdus merula	,	•		F	adult	Passeriformes
Turdus merula					-	Passeriformes
Turdus merula	Dumitra (AB)	Osváth Gergely	28.03.2018	M		Passeriformes
Turdus migratorius	California (USA)	Xántus János	xx.xx.1859	M		Passeriformes
Turdus philomelos	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1909	M		Passeriformes
Pissonius	Craj rapoca (Cj)	i dilici Lajos	AA. 1 U. 1 / U/	A 4 I		. addenned intes

Species	Location	Name of collector	Data	Sex	Age	Order
Turdus philomelos	Cluj-Napoca (CJ)	Zwörner Sándor	xx.10.1903	M		Passeriformes
Turdus philomelos	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1909	F		Passeriformes
Turdus philomelos	Micești (CJ)	Führer Lajos	xx.11.1909	M		Passeriformes
Turdus philomelos	Cluj-Napoca (CJ)	Vizauer Tibor Csaba	01.10.2021		juvenile	Passeriformes
Turdus pilaris	Căpușul Mare (CJ)		24.03.1984	M		Passeriformes
Turdus pilaris	Făget (CJ)		24.03.1954	F		Passeriformes
Turdus pilaris	Făget (CJ)		24.03.1954			Passeriformes
Turdus pilaris					adult	Passeriformes
Turdus torquatus	Ceahlău (NT)	Vincze Ferencz	09.05.1971	F		Passeriformes
Turdus viscivorus	Borşa (CJ)	Kómis Lajos	26.12.1913	M		Passeriformes
Turdus viscivorus	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1912	M		Passeriformes
Turdus viscivorus	Cluj-Napoca (CJ)	Führer Lajos	xx.10.1912	F		Passeriformes
Turdus viscivorus	Cluj-Napoca (CJ)	Führer Lajos	xx.02.1913	F		Passeriformes
Turdus viscivorus	Cluj-Napoca (CJ)	Zwörner Sándor	08.01.1903	F		Passeriformes
Turdus viscivorus	Cluj-Napoca (CJ)	Führer Lajos	08.01.1913	M		Passeriformes
Turdus viscivorus	Cluj-Napoca (CJ)	Führer Lajos	10.01.1913	F		Passeriformes
Turdus viscivorus	Cluj-Napoca (CJ)	Führer Lajos	05.01.1913	M		Passeriformes
Turdus viscivorus	Cuzăplac (SJ)	Kómis Lajos	21.12.1913	F		Passeriformes
Turdus viscivorus						Passeriformes
<i>Uрира ерор</i> ѕ	Aghireş (CJ)	Führer Lajos	xx.09.1909	M		Bucerotiformes
<i>Uрира ерор</i> ѕ	Aghireş (CJ)	Führer Lajos	xx.09.1909	F		Bucerotiformes
<i>Uрира ерор</i> ѕ	Cluj-Napoca (CJ)	Ajtai K. Gyula	26.05.1910	F		Bucerotiformes
<i>Uрира ерор</i> ѕ	Gilău (CJ)	Führer Lajos	xx.09.1909	F		Bucerotiformes
<i>Uрира ерор</i> ѕ						Bucerotiformes
Vanellus vanellus	Cătina (CJ)	Zwörner Sándor	04.10.1903	M	juvenile	Charadriiformes
Vanellus vanellus	Hortobágy (HU)	Nagy Jenő	xx.04.1907	M	adult	Charadriiformes
Vanellus vanellus	Hortobágy (HU)	Nagy Jenő	xx.04.1907	F	adult	Charadriiformes
Zapornia parva	Mociu (CJ)	Führer Lajos	xx.11.1909	M	juvenile	Gruiformes
Zapornia parva	Mociu (CJ)	Führer Lajos	xx.11.1909	F	juvenile	Gruiformes
Zapornia parva	Mociu (CJ)	Führer Lajos	xx.11.1909	M	juvenile	Gruiformes
Zapornia parva	Răscruci (CJ)	Führer Lajos	xx.10.1909	M	juvenile	Gruiformes
Zapornia parva	Ungaria (HU)	Führer Lajos	xx.05.1911	F	adult	Gruiformes
Zapornia parva	Ungaria (HU)	Führer Lajos	xx.05.1911	F	adult	Gruiformes

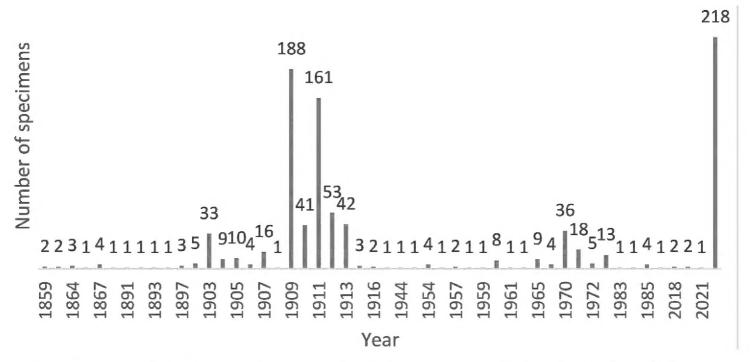
# Collection summary

In total, we identified 925 specimens in the scientific bird skin collection housed in the Zoological Museum of Babeş-Bolyai University (Table 1; for detailed catalogue see Suppl. material 1: Table S1), belonging to 193 species from 53 families and 20 orders (Fig. 2). The orders with the most specimens were Passeriformes (487), Charadriiformes (103), Accipitriformes (77), Pelecaniformes (43), Piciformes (33), Falconiformes (28), and Gruiformes (26). Twelve orders (Anseriformes, Strigiformes, Podicipediformes, Columbiformes, Cuculiformes, Caprimulgiformes, Bucerotiformes, Ciconiiformes, Coraciiformes, Galliformes, Suliformes, Procelariiformes, and Psittaciformes) were represented by 25 or fewer specimens (Fig. 2).

The origins of 242 of 925 bird skin specimens are unknown, while three specimens were procured from different zoological gardens. 93.55% (639 out of 683) of specimens with known data were collected from Transylvania; only 43 specimens were collected outside this region, from different parts of Romania, Hungary, Ukraine, Bulgaria, Poland, and Norway (Fig. 3a, b). The collection includes eight exotic specimens:



**Figure 3. a** The geographical distribution of the bird skin collection in the Zoological Museum of Babeş-Bolyai University with the number of bird specimens collected from each region (NA=data not available) **b** localities of birds collected in Transylvania.



**Figure 4.** Temporal distribution of numbers of bird skin specimens added to the Zoological Museum of Babeş-Bolyai University Cluj-Napoca, Romania. (NA=218).

one with unknown data (*Melopsittacus undulatus*), three from Australia (*Eupsaltria australis*, *Lichenostomus fuscus*, *Pomatostomus superciliosus*), two from the USA (*Myiarchus cinerascens*, *Turdus migratorius*) one from Indonesia (*Pycnonotus cafer*), and one collected from Transylvania that is often kept as pet (*Estrilda troglodytes*) (Table 1; Suppl. material 1: Table S1).

The bird skin specimens in the collection housed in the Zoological Museum of Babeş-Bolyai University were collected between 1859 and 2021 (Fig. 4). However, we were unable to identify the year of collection/acquisition for 218 individuals. The oldest specimens were collected by János Xántus during his Californian expeditions

between 1857 -1859, and donated to the museum in 1959 (Frivaldszky 1865). The oldest native species in the collection with known data were collected by Ottó Herman in 1867. Most of the specimens were collected between 1909 and 1913 by Lajos Führer (460 specimens), followed by Ferencz Vincze (72 specimens) between 1970 and 1973. In total, the bird skin collection has had 26 different contributors (Table 1; Suppl. material 1: Table S1).

The collection also includes rarities and important avifaunistic data, for example one specimen of the Cinereous Vulture *Aegypius monachus*, two specimens of the Eastern Imperial Eagle *Aquila heliaca*, and one Lesser Kestrel *Falco naumanni*, all collected between 1903 and 1907 from Transylvania (Table 1). The full catalogue of bird skin collection is provided in the Suppl. material 1: Table S1.

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# Supplementary material I

# The catalogue of bird skin specimens held by the Zoological Museum of Babeş-Bolyai University, Cluj-Napoca, Romania

Authors: Gergely Osváth, Edgár Papp, Zoltán Benkő, Zsolt Kovács

Data type: xslx. file.

Explanation note: The catalogue of bird skin specimens held by the Zoological Museum of Babeş-Bolyai University, Cluj-Napoca, Romania, including their new and ols inventory numbers, updated species identification and scientific name, locality, country and region of collection, gps coordinates, name of collector, date of collection, sex and age of birds.

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